LYNX®

Terminal

User's Guide

C14467700A
6/01.00

INTRODUCTION

This manual is provided solely as a guide to the operation of the LYNX industrial scale terminal. Installation, service, and maintenance information is presented in the LYNX Terminal Technical Manual.

FCC NOTICE

This equipment has been tested and found to comply with the limits of the United States of America FCC rules for a Class A digital device, pursuant to Part 15 of the FCC Rules and the Radio Interference Regulations of the Canadian Department of Communications. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense.

ORDERING INFORMATION

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This manual describes the operation and functionality of the LYNX terminal containing software number E145828. The software number is displayed during the power-up sequence.

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89/336/EU EMC Directive / EMU-Richtlinie / Directive concernant la CEM
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EN50082-2: 1995 Immunity
73/23/EU Low Voltage / Niederspannung / basse tension
EN61010 el. Safety / el. Sicherheit / sécurité el.

Other Directives and Standards / Andere Richtlinien und Normen / Autres documents
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C22.2 No. 950-M89 el. Safety / el. Sicherheit / sécurité el. (If CUL mark is applied)
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Darrell Flocken, Manager - Weights & Measures
Office of Weights and Measures
Worthington, Ohio USA
~~August, 1995~~
~~Revised November, 1995 (added compliance to NAWI Directive)~~
Revised June, 1997 (added compliance to EN50082-2) according to EN45014

PRECAUTIONS

Save this manual for future reference.

Call METTLER TOLEDO for parts, information, and service.

WARNING

ONLY PERMIT QUALIFIED PERSONNEL TO SERVICE THIS EQUIPMENT. EXERCISE CARE WHEN MAKING CHECKS, TESTS AND ADJUSTMENTS THAT MUST BE MADE WITH POWER ON. FAILING TO OBSERVE THESE PRECAUTIONS CAN RESULT IN BODILY HARM AND/OR PROPERTY DAMAGE.

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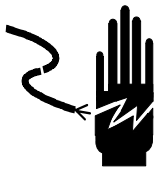

⚠ WARNING!

WHEN THIS EQUIPMENT IS INCLUDED AS A COMPONENT PART OF A SYSTEM, THE RESULTING DESIGN MUST BE REVIEWED BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OEPRATION OF ALL COMPONENTS IN THE SYSTEM AND THE POTENTIAL HAZARDS INVOLVED. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN BODILY HARM AND/OR PROPERTY DAMAGE.

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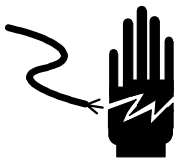

⚠ WARNING

POWER OUTLETS MUST BE EASILY ACCESSIBLE AND LOCATED NO FURTHER THAN THE LENGTH OF THE POWER CORD SUPPLIED WITH THE PRODUCT. FAILURE TO DO SO COULD IN RESULT IN PERSONAL INJURY AND/OR PROPERTY.

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1 Introduction

This manual provides detailed information for operating the LYNX terminal, a high performance industrial scale terminal that combines flexibility and speed with an easy-to-use operator interface to meet a wide range of weighing needs quickly and reliably. Information on installing, programming, and servicing the LYNX terminal can be found in the LYNX Terminal Technical Manual.

Review all instructions and safety precautions carefully. Only authorized personnel should perform installation and service procedures.

If you encounter problems not covered in this manual, please contact your authorized METTLER TOLEDO representative.

Cleaning and Regular Maintenance

In almost all cases, as an operator, you will not need to be concerned about installing or servicing the LYNX terminal. However, you may be required to clean the terminal and provide regular maintenance. You may wipe the keyboard and covers with a clean, soft cloth that has been dampened with a mild glass cleaner. Do not use any type of industrial solvent such as toluene or isopropanol (IPA) as they may damage the terminal's finish. Do not spray cleaner directly on the terminal.

Regular maintenance inspections and calibration by a qualified service technician are recommended.

NOTES

2 LYNX Terminal Features and Operations

LYNX Display Area

The LYNX terminal has a single alphanumeric display where scale data and operational messages are presented. The display is pictured below:

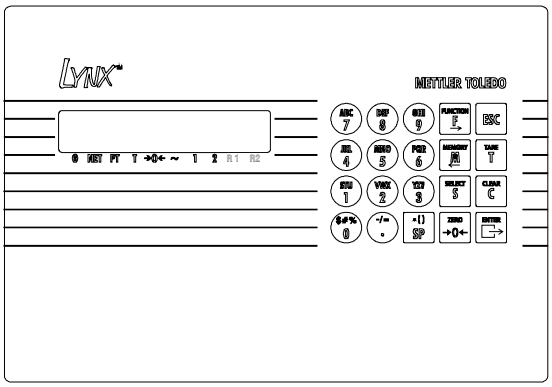

Figure 2-1 LYNX Display and Keypad

The 10-character alphanumeric display can display letters and/or numbers. Each character also has a comma and decimal point associated with it. The display indicates scale weight unless you are in setup mode (used for programming the LYNX terminal) or using prompting.

Annunciators point to labels in the legend directly below the display area. The annunciators indicate:

- **Weighing mode** (**G**ross or **NET**)
  The LYNX terminal is in net mode (NET) when a tare is active. A tare can be entered as a Preset Tare value or automatically acquired when you press the **TARE** key. Tare can also be entered through an interface. If no tare is active the LYNX terminal will be in gross mode (G).
- **Type of tare (P**reset **T**are **or T**are**)**
  The preset tare (PT) annunciator indicates a preset tare has been recalled and displayed. Preset tare is entered manually using the numeric keys on the keypad. Preset tare is also referred to as keyboard tare or manual tare.

  The Tare (T) annunciator indicates that a pushbutton tare or automatic tare has been recalled and displayed. You can perform a pushbutton tare by pressing **TARE**. If Auto Tare was enabled in setup, tare can be taken automatically when a container is placed on the scale.
- **Center-of-zero** (**→0←**)
  The center-of-zero annunciator indicates that the scale is within ± 1/4 increment of gross zero.

- **Scale instability** (~)
  The scale instability annunciator indicates that the scale is in motion. The annunciator will turn off when the scale is stable. The sensitivity of motion detection can be adjusted in setup.
- **Discrete Outputs 1–2**
  The discrete output annunciator indicates that the associated discrete output on the LYNX Controller PCB is on. The LYNX terminal only displays the status of outputs 1 and 2. The status of output 3,4, and 5 is not available on the display. Output functions are programmed in setup.
- **Weighing Range R1 or R2**

  If the LYNX terminal is configured for two weighing ranges, the R1 annunciator will indicate that the scale is in the low range and R2 the high range.

LYNX Terminal Keypad

The LYNX terminal features a 20-key keypad as shown here:

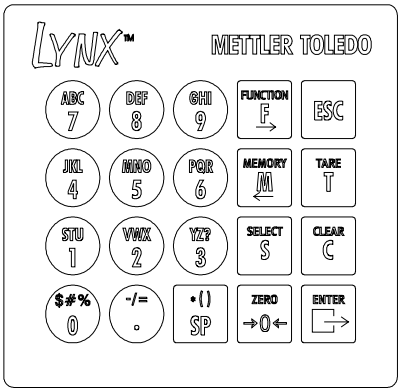

Figure 2-2 LYNX Keypad

The keypad consists of numeric keys 0 through 9, a decimal point, a space key, and eight function keys. The numeric keys also contain alphabet characters and special symbols.

The keys perform the following functions:

- **NUMERIC Keys** are used to input numbers and the alphabet characters and symbols that appear on the specific keys. (See Alphabetical and Special Character Entry later in this chapter.)
- **DECIMAL POINT** (.) inserts a decimal point as necessary. It is also used to enter the symbols "–", "/", and "=".
- **SPACE** (SP) inserts a space where necessary. It is also used to enter the symbols "*", "(", and ")".

- **FUNCTION** (F) accesses various functions depending on the LYNX terminal's setup configuration including:

  Dynamic Weighing Mode—If enabled, the **dynamic weighing mode** averages scale weight when excessive motion on the scale cannot be stabilized, such as when weighing livestock.

  Switch Units—If enabled, **switch units** allows you to change the display unit of measure for scale weight.

  Recall Tare—If enabled and the terminal is in net mode, **recall tare** allows the tare value to be recalled in the display.

  Recall Gross—If enabled and the terminal is in the net mode, **recall gross** allows the gross weight value to be recalled on the weight display.

  Accumulation Recall and Print—If enabled, **accumulation recall and print** lets you recall and print accumulated totals.

  ID/Tare View and Print—If enabled, **ID/Tare view and recall** and print lets you view and print a single stored tare record or reports showing multiple records.

  Enter Setup—If configured, you may use the **FUNCTION** and **SELECT** keys to enter setup and configure the program blocks in setup mode.

  Edit—When editing a text string, the **FUNCTION** key acts as a right arrow moving the cursor one position to the right with each keystroke.

- **MEMORY** (M) accesses various memory functions depending on the LYNX terminal's setup configuration including:

  Recall ID—If ID/Tare is enabled, **recall ID** lets you recall a stored ID record from memory.

  Store ID—If ID/Tare is enabled, **store ID** lets you store a weight transaction in memory.

  Prompt List—**Prompt lists** permit data entry into a user-defined prompt list which was created through the Configure Memory program block in setup.

  Setpoints—If accessed, this feature lets you enter setpoint cutoff values.

  Consecutive Number—This feature displays the current consecutive number. You can also reset the consecutive number.

  Time—The time feature displays the clock and allows adjustment of the time.

  Date—The date feature displays the date and allows adjustment of the date.

  Edit—When editing a text string, the **MEMORY** key acts as a left arrow moving the cursor one position to the left with each keystroke.

- **SELECT** (S) scrolls through and displays items in option lists and acts as a special function key if assigned in the Application Environment program block.
- **ZERO** (→0←) zeroes the scale.
- **ESCAPE** (ESC) exits an operating mode.
- **TARE** (T) performs a pushbutton tare function if enabled in setup.
- **CLEAR** (C) clears a tare value and returns the scale to gross mode. The **CLEAR** key also functions as a backspace/delete when entering data from the keypad.
- **ENTER** acknowledges a prompt and accepts data entered from the keypad. **ENTER** also initiates a demand print output.

Alphabetical and Special Character Entry

You can use the LYNX terminal's keypad to enter alphabetic characters and numbers. To enter an alphabet character:

1. Press the numeric key with the desired letter. The number is displayed.
2. Press **SELECT** one or more times until the desired letter appears.
3. Press the key that contains the next character you wish to enter. Then, press **SELECT** until the desired letter appears.
4. When you have finished entering all letters and numbers, press **ENTER**. The data is accepted when **ENTER** is pressed.

In some cases, you may be able to enter only numeric characters.

For example: To enter the name "TOM":

Key Press	Display Shows
STU 7	1
SELECT S	S
SELECT S	T
MNO 6	T5
SELECT S	TM
SELECT S	TN
SELECT S	TO
MNO 6	TO5
SELECT S	TOM
ENTER	Varies depending on situation

Editing Data

When a text string of characters is shown on the display, the **CLEAR**, **ESCAPE**, **FUNCTION** and **MEMORY** keys can be used to edit the character string.

CLEAR—deletes the last character at the right of the display. If **CLEAR** is pressed when a string is first displayed, the entire string is deleted.

ESCAPE—returns the original data to the display if it has been edited.

FUNCTION—acts as a right arrow moving the cursor across the display in the right direction.

MEMORY—acts as a left arrow moving the cursor across the display in the left direction.

The position at the far right of the display is the active edit position. From this position you can insert a character and not delete the existing character in that position.

For example, to change the name "TOM" to "TIM":

Key Press	Action	Display Shows
		TOM
MEMORY M	Moves edit position left	TO
CLEAR C	Deletes letter O	TM
FUNCTION F	Moves edit position right	T
GHI 9	Inserts character	T9
SELECT S	Changes character	TG
SELECT S	Changes character	TH
SELECT S	Changes character	TI
FUNCTION F	Moves edit position right	TIM
ENTER		Varies depending on situation

Power-up Sequence

The LYNX terminal goes through a series of self-tests when it is turned on. These tests confirm normal terminal operation. The power-up sequence is as follows:

1. All segments of the display window are lit. This verifies operation of all segments.
2. The LYNX terminal performs internal power-up tests and displays the following messages as these tests are performed:

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3. After a delay, the terminal displays the software part number.
4. Next, the terminal tests communication with the load cell. The terminal displays weight when successful communication is established. If the LYNX terminal is unable to establish communication, an error is displayed.
5. Finally, if enabled, the LYNX terminal's power-up timer counts the minutes and seconds remaining before the unit advances to normal operating mode. Power-up timer configuration is discussed in the LYNX Terminal Technical Manual.

The total power up sequence requires approximately 25 seconds. This delay is analogous to the time required to "boot" a personal computer.

3 Operating Instructions

Overview

A LYNX terminal connected to a scale performs as part of the scale. All scale operations are performed from the terminal. This section discusses the LYNX terminal's normal operating mode and the following operator functions:

- Zero the scale
- Tare operations
- Print operations
- MEMORY key operations
- FUNCTION key operations
- SELECT key operations

Normal Operating Mode

The LYNX terminal can display the current gross or net weight values. The annunciators indicate the status of the display and weighing mode (NET or GROSS). The following table illustrates the LYNX terminal's display conditions.

Normal Weight Display		
Condition	**Display Annunciators**	**Example**
GROSS or NET mode; Gross weight recalled	gross weight	2394 g
	gross mode	G
NET mode	net weigh	2234 g
	net mode	NET
NET mode; Preset tare recalled	tare weight	161 g
	tare mode	PT
NET mode; Pushbutton tare recalled	tare weight	161 g
	tare mode	T
Net mode; Automatic tare recalled	tare weight	161 g
	tare mode	T

Zero the Scale

If Pushbutton Zero is enabled, you can press **ZERO** to establish a new zero center of reference for the scale when in gross mode. When you press **ZERO,** one of the following situations occurs:

Condition	Display Reads
Pushbutton zero disabled	OUT OF ZERO RANGE and returns to normal mode.
Pushbutton zero enabled Residual weight on scale less than pushbutton zero range*	Scale is zeroed.
Pushbutton zero enabled Residual weight on scale greater than pushbutton zero range*	OUT OF ZERO RANGE and returns to normal mode.
Pushbutton zero enabled Scale in net mode	ILLEGAL SCALE MODE and returns to normal mode.

* Pushbutton zero range is configured in setup.

Tare Operations

The LYNX terminal supports three tare operations:

- Pushbutton Tare
- Preset (Keyboard) Tare
- Auto Tare

The following tare-related features are also supported:

- Auto Clear Tare
- Recall Tare
- Recall Gross
- Tare Interlock

Tare operations are enabled or disabled in setup.

Pushbutton Tare

Pushbutton tare compensates for weight (usually an unknown quantity such as an empty box or other container) on the weighing platform with a single keystroke and switches the terminal to net mode.

If Pushbutton Tare is Enabled:

1. Place a load to be tared on the scale platform and press the **TARE** key on the keyboard. The display area reads 0.0 with the net annunciator illuminated.
2. Place the load to be weighed on the platform. The net weight of the load is displayed.
3. Clear tare by pressing **CLEAR**. The terminal returns to gross mode and displays the weight on the platform.

Example: Pushbutton Tare
The operator places an empty container on the scale and the display shows 12.3 lb with the Gross annunciator lit. The operator presses TARE and the display shows 0.0 lb with the NET annunciator lit. The operator then fills the container with 50 pounds of material. The terminal displays the net weight of the load in the container as 50.0 lb with the NET annunciator lit.

When the filled container is removed, the display shows the negative tare value as –12.3 lb with the NET annunciator lit. The operator presses CLEAR and the LYNX returns to gross zero.

Preset (Keyboard) Tare

Preset tare, sometimes called keyboard tare, compensates for a known tare weight on the scale. Preset tare is used when the net weight of contents in a filled container must be determined and the tare weight is known.

If Preset (KB) Tare is Enabled:

1. Place the load on the platform. The display shows the gross weight of the load. Be sure you know the weight of the portion to be compensated for by preset tare.
2. Use the numeric keys to enter the known tare weight. Then press **ENTER**. The net weight of the load is with an annunciator indicating NET.
3. Clear tare by pressing **CLEAR**. The terminal returns to gross mode and displays the gross weight on the platform.

Example: Preset Tare Enabled
A loaded truck (80,000 pounds) is driven onto a weigh station platform and the operator enters the known weight of the truck (17,500 pounds). The LYNX terminal displays the net weight of the truck's contents as 62,500 lb with the NET annunciator lit.

When the truck is driven off the platform, the operator presses CLEAR to clear the tare value and return the terminal to gross zero.

Auto Tare

Auto tare automatically tares the indicator when a stable load on the platform exceeds a preset gross weight threshold value. A gross weight reset value is also used to determine when the terminal will be "re-armed" to do another auto tare.

If enabled, the LYNX terminal checks the stability of the load before rearming auto tare. You may want to disable motion check if the load will not become stable, as when rapidly weighing one item after another.

If Auto Tare is Enabled:

The operator does not have to press any key to perform tare if Auto Tare is enabled, but must press **CLEAR** to return to gross mode.

1. Place a load on the scale platform that exceeds the tare threshold value. When the scale is stable, the terminal automatically tares the scale to net zero.
2. Place the load to be weighed on the platform. The LYNX terminal displays the net weight with an annunciator indicating NET.
3. Clear tare and return to gross mode by pressing the **CLEAR** key.
4. When the weight is removed and the reset threshold is passed, the scale rearms for the next sequence.

Example: Auto Tare Enabled
The auto tare threshold value has been set to 100 pounds through the Application Environment program block. The operator places an empty container on the platform that weighs more than 100 pounds. The LYNX terminal automatically tares the scale and displays 0 lb NET. The operator then fills the container and records the net weight of the load.

When the filled container is removed and the weight on the platform falls below the reset threshold value, the LYNX terminal rearms and is ready for the next container. If check motion is enabled, the LYNX terminal will not rearm unless the weight on the scale settles below the reset threshold value.

Auto Clear Tare

Auto clear tare can be used in conjunction with any or all of the tare options described above. This feature automatically clears the tare and returns the terminal to gross mode when weight on the platform has exceeded, then fallen below a preset gross weight threshold value.

The check motion parameter can be enabled to ensure the scale weight is stable before automatically clearing tare.

Recall Tare

The LYNX terminal allows you to recall and display the tare while in net mode. Tare recall is accessed by using the **FUNCTION** key.

Recall Gross

The LYNX terminal allows you to recall and display the gross weight while in net mode. This may be useful if you need to see the gross weight but do not wish to clear the current tare value. Gross weight recall is accessed through the **FUNCTION** key.

Tare Interlock

Tare interlock imposes some restrictions on tare operations. If tare interlock is enabled, tare may be cleared only at gross zero, and multiple tares are prohibited.

Print Operations

The LYNX terminal supports the following print operations:

- Demand Print
- Minimum Print
- Print Interlock
- Auto Print
- Net Sign Correction
- Continuous Output

Any or all of the print operations can be enabled or disabled in setup. The print output format and destination port are also determined in setup. Output can be directed through one or more local serial ports (COM1, COM2, or COM3).

Demand Print

If a demand mode connection is configured, demand printing is initiated when an operator presses the **ENTER** key in normal operating mode or through an external interface such as a discrete input port or an ASCII input command. If no conditions exist

to inhibit printing, output will be sent to the connected printer and the terminal displays the message **PRINTING**.

If a demand mode connection is not configured, the terminal displays **PRINT INHIBITED**. If a demand print is requested while weight on the scale is unstable, the LYNX terminal waits until motion stops, then prints.

If no demand mode connection is selected but a host or continuous connection exists, the display reads **PRINT REQUESTED** and the respective connections reflect the request.

Minimum Print

The minimum print parameter prohibits data output if gross weight on the scale is below a threshold value configured in setup. If you press **ENTER** to initiate printing with scale weight below the threshold value, the terminal displays **PRINT NOT READY** on the display.

Print Interlock

Print interlock prevents multiple print requests for a single weighing transaction. Print threshold and reset values determine operation of print interlock. Additionally, a check motion before reset parameter can be enabled.

If print interlock is enabled and conditions of print interlock are not satisfied, the terminal displays **PRINT NOT READY**.

Auto Print

Auto print allows printing to occur without operator action. The terminal automatically initiates data output when gross weight on the scale settles above the print threshold value. Auto print is "re-armed" when the weight falls below the reset threshold value. A check motion before reset parameter can also be configured for auto print.

Continuous Output

Serial ports can be configured to output data continuously. In continuous mode, weight data is transmitted up to 20 times per second in a fixed format. A status bit in the fixed format changes state when a demand print request is received.

Host Mode

Serial ports can also be configured for connections to a host device such as a personal computer. In the host mode, weight data can only be requested from the host device; data is not transmitted without a request. A status bit in one of the host status bytes indicates a print request has been received.

Automatic Prompting Operations

Automatic prompting causes the LYNX terminal to automatically jump from the normal weighing mode to the first step in a prompt list. Prompt lists, described later in this chapter, facilitate specific data input from the operator or cause some specific action to take place, such as taring the scale or printing.

If automatic prompting is enabled, the LYNX terminal will jump to the prompt list whenever the weight exceeds a preset, auto prompt threshold value. It will then be "re-armed" for the next cycle when the weight drops below the auto prompt value. Whether or not the scale must settle to a no-motion state before jumping or re-arming is determined by setting a flag in the auto prompt setup program sub-block.

MEMORY Key Operations

The **MEMORY** key is used to perform the following operations:

- Store and recall temporary and permanent ID/Tare records
- Use a prompt list
- Assign consecutive numbers
- Assign setpoints
- Set LYNX system time
- Set LYNX system date

Memory operations are enabled or disabled in setup.

The LYNX terminal can store up to 99 commonly used tare values in memory.

Store and Recall Temporary and Permanent ID/Tare Records

The LYNX terminal can store two types of tare records in memory: temporary and permanent tares. Temporary tare records are stored and recalled with the **MEMORY** key and are automatically cleared after recall. Temporary tare records are used for one transaction only.

Permanent tare records are also stored and recalled with the **MEMORY** key; however, permanent tare records can be used repeatedly as defined in setup.

Each tare record can be accessed with a one- or two-digit ID number or an alphanumeric Record ID (up to 10 characters).

Example: The following illustrates temporary vs. permanent tare records.

A privately contracted truck comes onto a scale at a filling site. It will fill only one load for the contractor. Because this truck will be weighed in and out only once, the operator enters the truck's tare weight as a temporary record.

You may also be able to use the auto print feature depending on setup configuration.

The truck is filled and comes back onto the scale to be weighed out. The operator recalls the previously stored temporary tare record. The LYNX terminal prints a ticket and displays net weight. The temporary tare record is automatically cleared and cannot be recalled again.

If auto print is enabled in setup, LYNX prints the transaction then displays net weight.

However, if one or several trucks are filled and weighed repeatedly, the operator would enter the trucks' tare weights as permanent records. Each time the filled truck comes onto the scale, the operator would recall the permanent ID/Tare record. The LYNX terminal would print a ticket and display net weight. The permanent tare record can be recalled as many times as configured in setup.

The **FUNCTION** key lets you generate reports listing data pertaining to temporary and permanent ID/Tare records. You can also clear ID/Tare records. Please refer to the following section entitled Function Key Operations for more information.

The **Descript?** prompt appears only if enabled in setup.

To store a temporary ID/Tare record:

In normal operating mode and with the container to be tared on the platform, press **MEMORY**, then press **SELECT** to display the **Store ID?** prompt. Press **ENTER**.

Tare and net weight printing operations are possible when recalling a stored tare value.

1. At the **ID?** prompt, enter an ID designation. If one or two digits are entered, the ID is stored as a numeric ID number. If more than two digits are entered, or if alphanumeric characters are entered, the ID is stored as a Record ID.
2. The LYNX terminal automatically searches its memory to verify that the entered ID designation is not already used. If the record ID is not already used, the LYNX

terminal stores the tare value and continues. If the ID is already used, The LYNX terminal responds **ID EXISTS!** and displays the **ID?** prompt where you can enter a different ID.

3. At the **Descript?** prompt, press **ENTER.** Enter a description for this record. The LYNX terminal stores the record and returns to normal operating mode.

Recall a Temporary ID/Tare Record

Temporary tare values stored in LYNX terminal's memory are recalled using the **MEMORY** key. When a stored ID is recalled, the net weight of the contents in the container is displayed.

To recall a temporary ID/Tare record:

1. In normal operating mode with the filled container on the platform, press **MEMORY**, then press **ENTER** at the **Recall ID?** prompt.
2. At the **ID?** prompt, enter the stored ID corresponding to the stored tare value for the container on the platform. The LYNX terminal automatically searches for the tare value according to the ID you entered. One of the following situations occurs:
   - If the description feature is enabled, the LYNX terminal displays the **Descript?** prompt for two seconds, then blanks allowing you to enter a description. Enter a description (maximum 20 alphanumeric characters), or press **ENTER** at the blank screen to continue.
   - If the ID record is found and the description feature is disabled, the LYNX terminal recalls the tare value, returns to normal operating mode, and displays the net weight of the contents in the container.
   - If the ID is not found or invalid, the LYNX terminal responds **ID EMPTY!**, and returns to the **ID?** prompt.

Store a Permanent ID/Tare Record

Permanent ID/Tare records are stored in the same general manner as temporary records using the **MEMORY** key. Permanent records, however, may be password protected if this feature is enabled in setup.

To store a permanent ID/Tare record:

1. Press **MEMORY**, then press **SELECT** to display the **Perm Tare?** prompt. Press **ENTER**.
2. At the **Pass?** prompt, enter your password. If the password is valid, the LYNX terminal continues. If the password is invalid, the LYNX terminal responds with the message **INVALID PASSWORD** and returns to normal operating mode.

The **Pass?** prompt appears only if password protection is enabled in setup.

3. At the **Quick ID:** prompt, enter a two-digit ID for the tare record you are storing. You must enter two numeric digits for this ID.
4. The display reads **Searching** while the LYNX terminal searches for an existing record with the ID you entered.

   One of the following situations occurs:

   If the ID does not already exist:

   - At the **New ID?** prompt, select **Y(es)** to enter a new record. Or, select **N(o)** to return to the **Quick ID:** prompt and enter a different ID.

Responses to prompts can be entered manually using the keypad or through the LYNX terminal's serial port from a bar-code scanner or other ASCII device.

The **Descript?** prompt appears only if enabled in setup.

If auto print is enabled in setup, LYNX prints the transaction then displays net weight.

- At the **Record ID** prompt, you can enter a longer, more descriptive ID for the record. Record ID can be up to 10 alphanumeric characters and can also be used to recall the record.
- At the **Descript?** prompt, enter a description for this record. You can enter up to 20 alphanumeric characters.
- At the **Tare** prompt, press **TARE** to type the tare weight, or use the numeric keys to type the tare value manually (if Manual Entry is enabled in setup). Press **ENTER**.
- At the **Another?** prompt, select **Y(es)** to enter another permanent tare record, or select **N(o)** to return to normal operating mode.

If the ID already exists:

- At the **Delete?** prompt, select **Y(es)** to clear the existing record, or select **N(o)** to edit the record.
- If you select **Y(es)**, the LYNX terminal automatically clears the record and continues to the **Another?** prompt.
- If you select **N(o)**, at the **Edit?** prompt, select **Y(es)** to enter new data for the record. As the LYNX terminal displays the existing data, use the alphanumeric keys to enter new data for Record ID, Description and Tare.
- At the **Another?** prompt, select **Y(es)** to enter another permanent tare record, or select **N(o)** to return to normal operating mode.

Recall a Permanent ID/Tare Record

Permanent tare values stored in the LYNX terminal's memory are recalled using the **MEMORY** key. When a stored ID is recalled, the net weight of the contents in the container is displayed.

To recall a permanent ID/Tare record:

1. In normal operating mode with the filled container on the platform, press **MEMORY**, then press **ENTER** at the **Recall ID?** prompt.
2. At the **ID?** prompt, enter the stored ID corresponding to the stored tare value for the container on the platform. The LYNX terminal automatically searches for the tare value according to the ID you entered. One of the following situations occurs:
   - If the ID record is found and the description feature is enabled, the LYNX terminal displays the **Descript?** prompt for two seconds, then blanks, allowing you to enter a description. Enter a description (maximum 20 alphanumeric characters), or press **ENTER** at the blank screen to continue.
   - If the ID record is found and the description feature is disabled, the LYNX terminal recalls the tare value, returns to normal operating mode, and displays the net weight of the contents in the container.
   - If the ID is not found or invalid, the LYNX terminal responds **ID EMPTY!**, and returns to the **ID?** prompt.

If there is a setpoint entry prompt in your prompt list, you can enter the dribble and preact values for the setpoint by pressing **SELECT**. Pressing **ZERO** will abort the setpoint entry prompt.

Data previously entered in response to a prompt can be retained or automatically cleared depending on how the prompt was configured during setup.

If a Feed or Discharge prompt is included in the prompt list, the **ESC** key can be pressed to terminate the output. Refer to the appendix in the LYNX Terminal Technical Manual for a discussion on applying the LYNX terminal in filling systems.

Either the two-digit Quick ID or the Record ID can be used to recall permanent ID/Tare records.

Prompt List

The LYNX terminal's prompt list feature is a simple but powerful means of facilitating specific data input from the operator or to cause a specific action to take place. The prompt list may be up to 20 steps with each step containing a command that determines the action the LYNX terminal will take when the step in executed.

The prompt list can be accessed automatically when a weight threshold is exceed, if auto prompting is enabled, by assigning the prompt list to the action of the **SELECT** key or by using the **MEMORY** key as follows:

In the normal weighing mode, press the **MEMORY** key then press **SELECT** to display **Prompt List?** Press **ENTER**.

Respond to each prompt, if appropriate, as indicated by the prompt. Some prompts, such as an automatic tare or print command, do not require a response. If manual data entry is required, you must press **ENTER** to terminate the input.

After the final prompt, the LYNX terminal will return to the normal weighing mode unless "loop mode" was selected in setup. Loop mode will cause the LYNX terminal to start over again at the first prompt. You may press **ESC** at any time in the prompt list sequence to terminate prompt list execution.

Assign Setpoints

The LYNX terminal can control up to five single-speed setpoints or a combination of single-speed and two-speed setpoints. These outputs are available on the PAR2 connector of the Controller PCB and in the continuous output of the LYNX terminal.

Single-speed setpoints consist of a coincidence setpoint value and a preact value (if enabled in setup). The preact value compensates for material in suspension that will still fall onto the scale after the setpoint is turned off. The setpoint actually turns off at the programmed setpoint minus the preact value.

Two-speed setpoints consist of a setpoint value, a dribble value, and a preact value. Tolerance is also programmable. With two-speed setpoints, the dribble value can be programmed to define an amount of material to be fed at a slower rate. The slower delivery rate begins when weight on the scale equals the setpoint value minus the dribble value.

The LYNX terminal prompts for setpoint and tolerance values if these features are enabled in setup. You can also select in setup which weight will be used with the setpoints (gross, net, or displayed).

To enter setpoint values:

1. Press **MEMORY**. Then press **SELECT** until the prompt **Setpoints?** is displayed. Then press **ENTER** to access setpoints.
2. If password protection is enabled in setup, at the **Pass?** prompt, enter a valid password. (If you enter an invalid password, the LYNX terminal responds **INVALID PASSWORD** and returns to normal operating mode.)
3. At the **Setpt#? 1** prompt, press **ENTER** to access setpoint 1, or press SELECT to access another setpoint, followed by **ENTER**.

   If the selected setpoint is a single-speed setpoint:

   - At the **Setpoint?** prompt, press **SELECT** to accept the current setpoint value and continue. Alternately, you can press **ENTER** if you wish to view or change the actual setpoint value, then use the numeric keys to enter a new setpoint value.
   - At the **Preact?** prompt, press **SELECT** to accept the current preact value and continue. Or, you can press **ENTER** to access and view or change the preact value, then use the numeric keys to enter a new preact value.

     When the preact value is set, the LYNX terminal returns to the **Setpt#?** prompt.

METTLER TOLEDO recommends disabling unit switching to avoid confusion when using setpoints.

If password protection is not enabled, continue to step 3.

The LYNX terminal prompts only for the selected setpoint fields during setpoint programming. If preact is not enabled in setup, LYNX will not prompt for preact.

The LYNX terminal does not display the Preact prompt if the feature is not enabled in setup.

The LYNX terminal displays either the **Zero Tol?** or the **Wt Tol?** prompt depending on how the tolerance feature is configured in setup.

- Press **ESCAPE** to return to normal operating mode, or press **SELECT** to access another setpoint.

If the selected setpoint is a two-speed setpoint:

- At the **Setpoint?** prompt, press **SELECT** to accept the current setpoint value. Or, press **ENTER** to access and view or change the actual setpoint value, then use the numeric keys to enter a new setpoint value.
- At the **Dribble?** prompt, press **SELECT** to accept the current dribble value. Or, press **ENTER** to access and view or change the dribble value, then use the numeric keys to enter a new dribble value.
- At the **Preact?** prompt, press **SELECT** to accept the current preact value. Or, press **ENTER** to access and view or change the preact value, then use the numeric keys to enter a new preact value.
- At the **Zero Tol?,** or **Wt Tol?** prompt, press **SELECT** to accept the current tolerance value. Or, press **ENTER** to access and view or and change the tolerance value, then use the numeric keys to enter a new value.
- When the tolerance value is set, the LYNX terminal returns to the **Setpt#?** prompt.
- Press **ESCAPE** to return to normal operating mode or press **SELECT** to access another setpoint.

If the number of 2-speed setpoints is 1, the "Use Setpoint 2" option is configured as Yes, and the selected setpoint is Setpoint #2:

- At the **Setpoint?** prompt, press **SELECT** to accept the current setpoint value. Or, press **ENTER** to view or change the actual setpoint value. Then use the numeric keys to enter a new setpoint value.
- At the **Preact?** prompt, press **SELECT** to accept the current preact value. Or, press **ENTER** to access and view or change the preact value. Then use the numeric keys to enter a new preact value.
- At the **Wt Tol?** prompt, press **SELECT** to accept the current tolerance value. Or, press **ENTER** to access and view or change the tolerance value. Use the numeric keys to enter a new value.
- When the tolerance value is set, the LYNX terminal returns to the **Setpt#?** prompt.
- Press **ESCAPE** to return to normal operating mode.

Reset Consecutive Numbering

The LYNX terminal maintains a consecutive number (CN) and can assign a unique eight-digit number to each transaction. The CN automatically increments by one upon print initiation through a serial port.

To view the current CN:

1. Press the **MEMORY** key.
2. Press **SELECT** to display the **CONSEC #?** prompt, then press **ENTER**. The current CN is displayed as **CN XX**.

To reset the CN:

- With the current CN displayed (steps 1 and 2 above), press **ENTER**.
- At the **Reset CN?** prompt, press **SELECT** to chose **Y**, then press **ENTER**.

If **Y**, confirm your decision at the **Sure?** prompt by selecting **Y** again. The consecutive number is returned to the reset value configured in setup.

To preset the CN manually using the MEMORY key:

- With the current CN displayed (steps 1 and 2 above), press **ENTER**.
- At the **Reset CN?** prompt, press **ENTER**.
- At the **Enter CN?** prompt, select **Y** to set the consecutive number manually, or select **N** if you do not wish to preset the consecutive number at this time.

  If **Y**, enter a preset value for the consecutive number using the numeric keys. This number will be used as the last consecutive number printed and will increment on the first print.

Set Time

The LYNX terminal's internal battery-backed time can be viewed or set using the **MEMORY** key. Configuration of the time format is done in setup mode. Chapter 3 provides a complete list of available time formats. You can also disable the time format in the program block.

To view or reset the time:

Consecutive numbering can be reset/preset manually only if the Enable Reset/Enable Preset features are configured as Yes in setup.

1. Press **MEMORY**, then press **SELECT** until the time is displayed.
2. Press **ESCAPE** to accept the current time and exit. Or, press **ENTER** to set the clock. If you are setting the clock:
   - At the **Hour?** prompt, enter the correct hour of day using according to the selected time format. Press **ENTER**.
   - At the **Minutes?** prompt, enter the correct minutes, then press **ENTER**.
   - If the selected format supports seconds, enter the correct value at the **Seconds?** prompt. Press **ENTER**.
   - If a 12-hour format is selected, press **SELECT** at the **Am/Pm?** prompt followed by **ENTER** when the desired designation is displayed.

Set Date

The LYNX terminal has a battery-backed date function. Configuration of the date format is done in setup mode. Chapter 3 gives a complete list of available date formats. You can also disable the date function through the same program block.

To view or reset the current date:

1. Press **MEMORY**, then press **SELECT** until the date is displayed.
2. Press **ESCAPE** to accept the current date and exit. Or, press **ENTER** to set the date. If you are setting the date, complete the date fields as prompted. You must press **ENTER** after each field. The order of prompting is determined by the selected date format.
3. Press **ENTER** after the last date prompt to exit.

FUNCTION Key Operations

The LYNX terminal supports these **FUNCTION** key operations:

- Dynamic Weigh mode
- Unit switching
- Tare weight recall
- Gross weight recall
- Accumulation total recall, print, and clear
- ID Tare functions
- Setup access

Dynamic Weigh Mode

The Dynamic Weigh mode, if enabled, averages weight readings on the scale for a predetermined amount of time, then displays the scale weight as an average. This weighing mode is useful for applications such as weighing livestock and other unstable loads. Automatic print is also available at the end of the weighing cycle.

To weigh unstable loads in dynamic weighing mode:

- Place the unstable load on the scale. Press the **FUNCTION** key.
- At the **Dynamic?** prompt, press **ENTER**. The display reads **-Dynamic-** while the LYNX terminal averages the weight of the load. When the load has been weighed and averaged for the predetermined time period, the LYNX terminal displays the average weight (with an asterisk indicating average). If enabled, the results print automatically at the end of the weighing cycle.

The LYNX terminal returns to normal operation at the end of the weighing cycle.

Unit Switching

Unit switching allows you to change between main and secondary units of measure.

To switch units:

- Press **FUNCTION** then press **ENTER** at the **Sw Units?** prompt. The terminal automatically switches to the alternate selection and displays the current unit of measure.

You must enable unit switching in setup to use the feature in normal operating mode. If unit switching is disabled, the LYNX terminal does not display the unit switching prompt.

Tare Recall

Recall tare allows the current tare value to be displayed. You must be in net mode.

To recall tare:

- Press **FUNCTION** then press **SELECT** until the **Rcl Tare?** prompt is displayed.
- Press **ENTER**. The LYNX terminal displays the recalled tare value.
- Press **ESCAPE** to return the display to net weight.

The recalled tare value is a "snapshot" of the actual weight. It is not an active weight.

Gross Recall

Recall gross allows you to view a snap shot of the current gross weight in situations in which it is undesirable to clear the tare value. You must be in net mode.

To recall gross:

- Press **FUNCTION** then press **SELECT** until the **Rcl Gross?** prompt is displayed.
- Press **ENTER**. The LYNX terminal displays the recalled gross weight value.
- Press **ESCAPE** to return the display to net weight.

The recalled gross value is a "snapshot" of the actual weight. It is not an active weight.

Accumulation Totals (Recall, Print, Clear)

The LYNX terminal's total and subtotal accumulators are accessed using the **FUNCTION** key. Accumulated totals can be viewed, printed, and/or cleared.

To recall accumulator totals:

Note: If more than one communications port is configured for demand mode output, the operator will be prompted for which port to use.

- Press **FUNCTION**, then press **SELECT** to display the **Accum?** prompt. Press **ENTER**.
- At the **Rcl Totals** prompt, press **ENTER**. The LYNX terminal automatically displays the message **Total** for two seconds, then displays the accumulation in the total register. Press **ENTER** to continue.
- After the total accumulation is displayed, the LYNX terminal displays the message **Subtotal** for two seconds then displays the accumulation in the subtotal register. Press **ENTER** to continue.

You cannot clear only the totals register and keep the subtotal register accumulation.

- After the subtotal accumulation is displayed, the LYNX terminal displays the message **Tran Count** for two seconds then displays the last consecutive number printed.
- Press **ENTER** to continue.

To print accumulated totals:

You must enable accumulation in setup to use the feature in normal operating mode. If accumulation is disabled, the LYNX terminal does not display the accumulation prompt.

- Press **FUNCTION**, then press **SELECT** to display the **Accum?** prompt. Press **ENTER**.
- At the **Rcl Totals** prompt, press **SELECT** to display the **Prt Tot?** prompt, then select **Y** to print the report. Alternately, you can select **N** to skip the print and continue. The LYNX terminal transmits the accumulation report (as formatted in setup) through all demand serial ports.

  The default format prints as follows:

TIME 09:37am	DATE Sep 16 1995
TRANSACTIONS	61
SUBTOTAL	148592 g
TOTAL	148592 g

To clear accumulated totals:

- Press **FUNCTION**, then press **SELECT** to display the **Accum?** prompt. Press **ENTER**.
- At the **Rcl Totals** prompt, press **SELECT** twice to display the **Clr Tot**? prompt, then select **Y** to clear the total and subtotal registers. Press **ENTER** if you do not wish to clear both registers.

  If **Y**, and if the password feature is enabled, the LYNX terminal displays the **Pass?** prompt.

  - Enter the correct password as configured in setup.
  - At the **Sure?** prompt, select **Y** to clear the totals and return to normal operating mode.

  If **N**, LYNX terminal continues to the **Clr Sub?** prompt.

- At the **Clr Sub?** prompt, select **Y** to clear the subtotal register only, or press **ENTER** to clear the register.
  - If you select **Y** and the password feature is enabled, the LYNX terminal displays the **Pass?** prompt.
  - Enter the correct password as configured in setup.
  - At the **Sure?** prompt, select **Y** to clear the totals and return to normal operating mode. Or, press **ENTER** to accept the **N** response and return to normal operating mode without clearing the accumulator.

ID/Tare

ID/Tare is used to manage the temporary and permanent tare records. You can:

- View and clear a single ID/Tare record.
- Print a report detailing temporary and permanent tare registers.
- Print a report of open temporary tare registers.
- Clear totals and number of transactions in the permanent tare register.

For more information on entering permanent and temporary ID/Tare records, see the section entitled MEMORY Key Operations.

To view and clear a single ID/Tare record:

Only permanent tare records have an accumulation value.

- Press **FUNCTION**, then press **SELECT** to display the **ID/Tare?** prompt. Press **ENTER**.
- At the **Single ID** prompt, press **ENTER** to recall a record.
- At the **ID?** prompt, enter the two-digit ID or the alphanumeric Record ID. The LYNX terminal displays the message **Searching** as it scans its memory for the record. If the record is found, the LYNX terminal displays the record description. If it is not found, the LYNX terminal displays the **ID?** prompt again so you can reenter the correct ID or Record ID.
- Press **ENTER** when the correct record description is displayed. The LYNX terminal displays the message **Tare** for two seconds, and then displays the tare value for that record.
- Press **ENTER** after you have viewed the tare value. The LYNX terminal next displays the message **Accum** for two seconds, then displays the actual accumulated total for the record.
- Press **ENTER** after you have viewed the accumulated total. The LYNX terminal next displays the message **Trans**, then displays the number of transactions that have been performed using this tare record.
- Press **ENTER** to continue.
- At the **Clear ID?** prompt, select **Y** or **N** to clear the current record.
- If **Y** and if **Clear ID** is password protected, at the **Pass?** prompt, enter your password. If the password is valid, at the **Sure?** prompt, select **Y** to clear the record and return to normal operating mode. Or, press **ENTER** to accept the **N** response and return to normal operating mode without clearing the record.
- The LYNX terminal clears the ID/Tare record and returns to normal operating mode. If the password is invalid, the LYNX terminal returns to the **Clear ID?** prompt.
- If **N**, the LYNX terminal returns to normal operating mode without clearing the ID/Tare record.

The print/clear operation for all records also clears accumulation and consecutive numbering data for permanent records.

To print and clear all ID/Tare records:

- Press **FUNCTION**, then press **SELECT** to display the **ID/Tare?** prompt. Press **ENTER**.
- Press **SELECT** to display the **All ID's** prompt, then press **ENTER**.
- At the **Prt All?** prompt, select **Y** to print a report detailing all ID/Tare records including open temporary and permanent records. The LYNX terminal displays the message **Printing** as it generates and prints the report. Alternately, you can select **N** if you wish to continue without printing a report.
- At the **Clr All?** prompt, select **Y** to clear all open temporary and permanent ID/Tare records.

Note: If more than one communications port is configured for demand mode output, the operator will be prompted for which port to use.

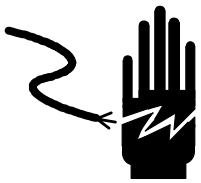
- At the **Pass?** prompt, enter your password. If the password is valid, at the **Sure?** prompt, select **Y** to clear the records and return to normal operating mode. Alternately, you can press **ENTER** to accept the **N** response and return to normal operating mode without clearing the records. If the password is invalid, the LYNX terminal returns to the **Clear All?** prompt.
- If you select **N** at the **Clr All?** prompt, the LYNX terminal returns to normal operating mode without clearing the ID/Tare records.

To print and clear all open, temporary ID/Tare records:

- Press **FUNCTION**, then press **SELECT** to display the **ID/Tare?** prompt. Press **ENTER**.
- Press **SELECT** to display the **Open ID's** prompt, then press **ENTER**.
- At the **Prt Open?** prompt, select **Y** to print a report detailing all open temporary ID/Tare records. The LYNX terminal displays the message **Printing** as it generates and prints the report. Or, select **N** if you wish to continue without printing a report.
- At the **Clr Open?** prompt, select **Y** to clear all open temporary ID/Tare records.
- At the **Pass?** prompt, enter your password. If the password is valid, at the **Sure?** prompt, select **Y** to clear the records and return to normal operating mode. Or, press **ENTER** to accept the **N** response and return to normal operating mode without clearing the records. If the password is invalid, the terminal returns to the **Clear Open?** prompt.
- If you select **N** at the **Clr Open?** prompt, the LYNX terminal returns to normal operating mode without clearing the ID/Tare records.

Enter Setup

You can access the terminal's setup programming blocks only if the terminal is used in non legal-for-trade applications and is configured to allow access to setup parameters.



⚠ WARNING

ONLY PERMIT QUALIFIED PERSONNEL TO SERVICE THIS EQUIPMENT. EXERCISE CARE WHEN MAKING CHECKS, TESTS AND ADJUSTMENTS THAT MUST BE MADE WITH POWER ON. FAILING TO OBSERVE THESE PRECAUTIONS CAN RESULT IN BODILY HARM AND/OR PROPERTY DAMAGE.

To enter setup, press **FUNCTION**, then press **SELECT** to display the **Setup?** prompt. Press **ENTER**.

SELECT Key Operations

If assigned in setup, the **SELECT** key may be used to perform one frequently used function. The following is a list of the functions that may be assigned to the **SELECT** key:

- Toggle between Net and Gross display
- Toggle between Net and Tare display
- Toggle between Net, Gross and Tare display
- Toggle between Primary and Secondary units
- Process the prompt list
- Store an ID record
- Recall an ID record
- Prompt for entry of Setpoint Number 1
- Prompt for entry of Setpoint Number 2
- Start dynamic weighing cycle
- Recall Total Accumulator to display
- Print the Accumulation Report

The **SELECT** key will only perform its reassigned function when appropriate. For example, you cannot toggle between Net and Gross if the scale does not have a current tare.

4 Appendix

Specifications

Model	Harsh Environment Enclosure	Panel Mount Enclosure	Harsh Environment Filling Controller
Dimensions	• 10.00 in (254 mm) x 7.00 in (178 mm) at the front of the terminal • 3.22 in (82 mm) deep	• 10.06 in. (255 mm) × 5.6 in. (14.2 mm) at front • 9.5 in. (241 mm) × 4.91 in. (125 mm) at rear • 6.46 in. (164 mm) behind panel	• 11.12 in (282 mm) x 9.42 in. (239 mm) at the front of the controller • 9.62 (244 mm) deep (including wall mount brackets)
Construction	NEMA4x, IP65 brushed stainless steel (type 304)	NEMA4, IP65 front panel; NEMA1, IP30 behind the panel	NEMA4x, IP65 brushed stainless steel (type 304)
Shipping Weight	12 lb (5.5 kg)	11 lb (4.9 kg)	21 lb (9.4 kg)
Power	Power and power cord according to destination market code 100/120 VAC (85-132 VAC) or 220/240 VAC (180-264 VAC); 49-63 Hz; 12 watts maximum		
Operating Temperature	14°F to 113°F (-10°C to 45°C); 10-95% relative humidity, non-condensing		
Display	10-character, alphanumeric, vacuum fluorescent, 0.44 in (11mm) high; Updated 10 times per second		
Keypad	20-key, numeric, function, and alphanumeric input, polyester construction		
Scale Performance	• 500 to 100,000 scale divisions capacity • 0.00001 to 200 division size • Count-by 1, 2 or 5 • 2 million internal counts for analog load cell scales	• 9 calibration engineering units of measure • 9 secondary engineering units of measure and custom units • Push button, preset, stored, and automatic tare	
Scale Interface	• Safe area analog load cells, maximum 8 x 350Ω; 2 or 3 mV/V selection • DigiTOL® load cell scales and junction box	• Hazardous area analog load cells when used with optional barrier	
Scale Update Rate	• Analog load cells at 20 updates per second	• DigiTOL load cells at 4-12 updates per second	
TraxDSP® Filtering	• 100% digital filtering with software tuning • Analog and DigiTOL low pass and stability filters	• Analog notch filter • Automatic filter tuning algorithm	
Discrete Outputs	• 5 low level, open-collector, 5-24 VDC outputs standard	• Programmable as 1- or 2-speed setpoints with preact, zero tolerance, setpoint tolerance, 1- or 2-speed feed control with preact, discharge control, motion, net mode, center of zero, under zero, over capacity	
Discrete Inputs	• 3 low level, ground true, 0-24 VDC inputs standard	• Programmable as tare, clear, zero, print, switch units, blank display, start dynamic weighing, inhibit key-board, x10 weight display, display accumulator total, OK to feed, OK to discharge, advance prompt list	

Model	Harsh Environment Enclosure	Panel Mount Enclosure	Harsh Environment Filling Controller
Serial Interface	• Continuous, Demand and Bi-directional Host Protocols • 300-38.4k baud, 7 or 8 data bits, 1 or 2 (COM2 and 3) stop bits	• Selectable parity, checksum, Xon/Xoff flow control • COM1 – RS-233 and RS-485 • COM2 – RS-232 and 20mA Current Loop • COM3 – RS-422 and DigiTOL load cell	
Memory	• Flash downloadable program memory • Removable EEPROM for calibration data • Battery-backed RAM and battery-backed, Y2K-compliant, time and date with multiple formats • 20 item prompt list for operator, process sequencing	• 20 user programmable, 40-character literal print messages • Consecutive numbering for print output serialization • Sub-total and total accumulators • 99 ID memory records for tare and/or accumulation • 4k bytes transaction record data storage	
Approvals	• UL (Underwriters Laboratories) per UL1950 • cUL (Canadian) per CSA 22.2 #950 • CE (European) Low Voltage Directive	• U.S. Weights and Measures Class III and IIIL NTEP Certificate of Conformance Number 95-085 • CE (European, OIML) Weights and Measures approval up to 6000e, # T2206 • Approval for other markets available on request	
Options	• 4-20mA, 0-5VDC, 0-10VDC, 16 bit D/A analog output • 6 decade, BCD weight data output (panel mount) • Internal high-level, solid-state discrete output relays (panel mount)	• Hazardous area analog load cell barrier • X-purged enclosure for hazardous area locations • Accessories including cables, printers, remote displays	

Standards Compliance

UL and cUL Listing

The LYNX terminal has been tested and complies with UL 1950 and CSA 22.2 No. 950. They carry the UL and cUL labels.

CSA Certification

The LYNX terminal is designed to meet CSA standard C22.2 No 143-1975, Office Machines.

Weights and Measures Approval (U.S.)

The LYNX terminal meets or exceeds requirements for Class III, or IIIL devices. Certificate of Conformance number 95-033 was issued under the National Type Evaluation Program of the National Conference on Weights and Measures for approval.

Conducted and Radiated Emissions (RFI)

The LYNX terminal meets or exceeds FCC docket 80-284 for conducted and radiated emissions requirements as a Class A digital device.

Radio Frequency Interference Susceptibility

The LYNX terminal meets USA, Canadian, and EC requirements for RFI susceptibility as listed in the following table with a maximum of one display increment of change when calibrated for recommended builds.

RFI Susceptibility			
	U.S.A.	Canadian	EC
Radio Interference Frequency	Field Strength	Transmitted Power at Specified Distance	Field Strength
27 MHz	3 volts/meter	4 Watts at 2 meters	N/A
144 MHz	N/A	N/A	N/A
169 MHz	3 volts/meter	N/A	N/A
464 MHz	3 volts/meter	4 Watts at 2 meters	N/A
27-1000 MHz	N/A	N/A	3 volts/meter

AC Power Line Voltage Variation

The LYNX terminal meets NIST H-44, Canadian Gazette Part 1, and OIML-SP7/SP2 line voltage variation specifications as listed in the following table:

AC Power Line Voltages						
Specification	AC Line Voltage			Line Frequency in Hz		
Line Voltage Variation	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
NIST H-44	100	120	130	59.5	60	60.5
Canadian	108	120	132	58.8	60	61.2
OIML-SP7/SP2	102 187 204	120 220 240	132 242 264	58.8 49.0 49.0	60 50 50	61.2 51 51

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